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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.												
10/772,034	02/03/2004	Michael J. Miller	47254.5700	3874												
7590 SNELL & WILMER L.L.P. One Arizona Center 400 East Van Buren Phoenix, AZ 85004-2202		12/28/2007	<table border="1"><tr><td colspan="2">EXAMINER</td></tr><tr><td colspan="2">BAKER, STEPHEN M</td></tr></table> <table border="1"><tr><td>ART UNIT</td><td>PAPER NUMBER</td></tr><tr><td>2112</td><td></td></tr></table> <table border="1"><tr><td>MAIL DATE</td><td>DELIVERY MODE</td></tr><tr><td>12/28/2007</td><td>PAPER</td></tr></table>		EXAMINER		BAKER, STEPHEN M		ART UNIT	PAPER NUMBER	2112		MAIL DATE	DELIVERY MODE	12/28/2007	PAPER
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/772,034

Applicant(s)

MILLER ET AL.

Examiner

Stephen M. Baker

Art Unit

2112

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 38-47, 58-67, 126-134 and 144-151 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 38-47, 58-67, 126-134 and 144-151 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 102***

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 38-42, 44-47, 58-65, 67, 126-129, 131-134, 144-149 and 151 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,856,988 to Kiriya (hereafter "Kiriya").

Kiriya discloses arrangements for selectively FEC encoding and decoding ATM cells with either a cell-loss error correction code (where the codeword spans several cells), a cell bit error correction code (where the codeword is in one cell), or no error correction code at all, thereby providing a "dynamic forward error correction encoder which generates ... one or more data segments" wherein each "segment" is an ATM cell. Kiriya's ATM network is a "time division multiplexed data transfer" network that carries cells in "time slots" and comprises a "plurality of network nodes" including a "sending network node."

Regarding claims 40, 45, 60, 61, 67, 131, 132, 146, 147 and 151, Kiriya's FEC selection is indicated by a "preamble" (HF, HE) preceding the encoded data and following a header, which effectively indicates the size of the FEC codeword.

Regarding claims 41, 62, 128 and 148, Kiriya suggests Reed-Solomon FEC.

Regarding claim 42, 65, 129 and 149, ATM cell headers in the FEC-encoded stream serve as 40-bit preambles.

Regarding claims 46, 47, 133 and 134, a cell-loss "network condition," which is affected by CRC errors, and a bit error rate, which is detectable as "forward error correction errors," are used in Kiriyaama's system to determine the type of FEC selected (column 4, lines 22-24).

***Claim Rejections - 35 USC § 103***

3. Claims 43, 66, 130 and 150 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kiriyaama.

Kiriyaama does not specify a rate-5/16 code for the FEC. Official Notice is taken that the usefulness of a rate-5/16 FEC code was well known at the time the invention was made. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to implement Kiriyaama's bit error correction or cell error correction using a rate-5/16 FEC code. Such an implementation would have been obvious because the usefulness of a rate-5/16 FEC code was already well known.

***Response to Arguments***

4. Applicant's arguments filed 09 October 2007 have been fully considered but they are not persuasive.

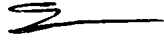
The examiner does not agree with applicant's characterizations of the Kiriyaama patent. Kiriyaama's interleaved (128, 124) Reed Solomon code would not be suitable as a per-cell bit error correction code because it is too long to fit in a cell, so Kiriyaama apparently uses two different codes, in contrast to applicant's characterization.

**Conclusion**

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen M. Baker whose telephone number is (571) 272-3814. The examiner can normally be reached on Monday-Friday (11:00 AM - 7:30 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jacques H. Louis-Jacques can be reached on (571) 272-6962. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Stephen M. Baker  
Primary Examiner  
Art Unit 2112

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10/772,034  
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